# State Revolving Fund Loan Programs

Drinking Water, Wastewater, Nonpoint Source

## ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

### CITY OF PERU

**GRISSOM AEROPLEX WASTEWATER TREATMENT PLANT UPGRADE**

**SRF PROJECT WW 08 08 52 03**

**DATE:** August 5, 2008

**DEADLINE FOR SUBMITTAL OF COMMENTS:** September 5, 2008

I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Loan Fund (SRF) for a loan to finance all or part of the wastewater project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF Clean Water Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

**Max Henschen**
**Senior Environmental Manager**
**State Revolving Fund -- IGCN 1275**
**100 N. Senate Ave.**
**Indianapolis, IN 46204**
317-232-8623

# ENVIRONMENTAL ASSESSMENT

## I. PROJECT IDENTIFICATION

| | |
|---|---|
| Project Name and Address: | City of Peru<br>335 East Canal<br>P.O. Box 67<br>Peru, IN 46970-0067 |
| SRF Project Number: | WW08 08 52 03 |
| Authorized Representative: | Mr. Roger Merriman, General Manager<br>Peru Utilities |

## II. PROJECT LOCATION

The Grissom Aeroplex and Air Reserve Base is located in central Miami County in north-central Indiana, approximately 60 miles north of Indianapolis. The existing and 20-year service areas encompass the Aeroplex and Base located near the intersection of U.S. Highway 31 and State Road 218 about 5.2 miles southeast of Peru and 2 miles northwest of Bunker Hill. The project area is the wastewater treatment plant (WWTP) located in the Onward USGS topographic quadrangle, T26N, R3E, NW ¼ of Section 25 (see Figures 1 and 2).

## III. PROJECT NEED AND PURPOSE

Prior to 1994, the Grissom water and wastewater facilities were owned and operated by the United States Air Force. The original plant was constructed in 1942 and upgraded and expanded at least six times. In 1994, the Grissom Air Force base was removed from active status as part of the Base Realignment and Closure Act. At that time, the operation and maintenance of the water and wastewater systems was contracted to the Grissom Redevelopment Authority. Peru applied to the Federal Government in 1996 to acquire the water and wastewater assets, and these were transferred to the city in 2000. The wastewater system provides service to Eagle's Pointe (residential housing), Grissom Air Reserve Base, Grissom Aeroplex, and the Miami Correctional Facility.

Grissom's collection system consists of a 100 percent sanitary sewer system constructed in the 1940s.

The collection system experiences excessive infiltration and inflow (I/I) during wet weather. Peru will continue to address this problem where practical through an annual sewer maintenance program. This maintenance program offers repairs or replacement to older or more problematic sections of the sanitary sewer system. Significant reductions of I/I have been achieved recently through the replacement of deteriorated manholes. The annual sewer maintenance program also includes repair work to the lift stations.

The WWTP periodically exceeds its National Pollutant Discharge Elimination System (NPDES) permit limitations. The WWTP has two process trains on the same site: the "domestic" train and the "industrial" train. Each train has a rating of one million gallons per day (MGD) producing an overall rated capacity of 2.0 MGD. The domestic train is a conventional waste activated sludge treatment process that includes: influent metering, screening, grit removal, primary sedimentation/ clarification, extended aeration activated sludge basins, secondary clarifiers, effluent chlorination/dechlorination facilities, effluent flow metering, anaerobic sludge digestion, and sludge drying beds. The "industrial" train primarily consists of three sequencing batch reactors (SBRs) that were constructed in 1991. SBRs were added to substantially increase the WWTP capacity by distributing the influent flow between the two separate trains. The "industrial" train includes: screening and grit removal, influent pumping, and combined biological treatment and settling/clarification in the SBRs. The "industrial" train's effluent combines with the secondary effluent from the "domestic" train prior to disinfection and effluent flow metering, then discharges through the 4,600-foot long effluent line to the outfall at Pipe Creek.

Several deficiencies exist in the "domestic" train: age of facilities, individual processes and equipment that have exceeded their useful service life, unsatisfactory and unreliable treatment components, antiquated treatment processes and associated equipment, non-conformance with current design criteria in the "Recommended Standards for Wastewater Facilities", lack of operational flexibility, and insufficient hydraulic and organic capacity to meet future requirements.

Due to a combination of design-related and operational issues associated with the SBRs, the "industrial" train has never functioned as originally designed. Substandard process equipment including aeration diffusers, decanters, and process control valves inhibited the performance of the SBRs. The intermittent and highly variable discharges associated with the operation of the SBR units caused an undue burden on the downstream processes (e.g., disinfection). For these reasons, the SBRs are no longer used for treatment; instead, they are used only for flow equalization, leaving all of the treatment to be handled by the "domestic" train.

Sludge produced at the WWTP consists of primary sludge and waste activated sludge (WAS). WAS is sent to the primary clarifiers to achieve a higher solids concentration than if handled separately. The WAS and primary sludge is pumped to two anaerobic digesters that currently serve as holding/equalization tanks. The anaerobic digesters are no longer in service due to poor mixing and lack of temperature control caused by inadequate or obsolete equipment. The sludge is transferred to geotextile membrane bags on the existing sludge drying beds for stabilization, dewatering and temporary on-site storage. The city adds polymer to enhance dewatering in the geotextile bags. The dewatered sludge is then periodically hauled by a licensed contractor to a regional biosolids disposal facility and ultimately land applied.

The proposed WWTP expansion/upgrade project includes: new influent flow metering equipment, new screening and grit removal, conversion of the SBRs to vertical loop reactors (VLRs), conversion of both aeration tanks to return activated sludge (RAS) conditioning tanks, two new secondary clarifiers, new ultra violet (UV) disinfection facilities, new effluent flow metering equipment, conversion of the existing anaerobic sludge digestion process to a biosolids destruction process, cascade step aerator for post-aeration, new effluent line and outfall to Cline Ditch immediately next to the WWTP site, and site works improvements.

## IV. PROJECT DESCRIPTION

The proposed project includes (see Figure 3):

A. Constructing an influent diversion structure that will combine the influent flows from both the "domestic" and "industrial" sewer systems and redirecting the flows to the new headworks and influent pumping station;

B. Replacing the influent screens with a new mechanically cleaned screen rated at 9.0 MGD with a screenings washer and compactor system;

C. Installing a grit chamber rated at approximately 9.0 MGD with a grit washer and dewatering system;

D. Constructing an influent pumping station with six submersible pumps including four large pumps rated at 1,800 gallons per minute (gpm) each and two small pumps rated at 556 gpm each;

E. Converting the SBRs to VLRs by adding a wall that divides each of the three SBR tanks into two VLR tanks for a total of six tanks;

F. Replacing the blowers in the Blower/Electrical Building with four positive displacement blowers rated at 800 standard cubic feet per minute (SCFM) each; two will be dedicated to the VLRs, one will be dedicated to the two RAS conditioning tanks and one spare will be shared by both systems.

G. Constructing a secondary diversion structure to distribute the effluent from the VLRs equally between the two proposed secondary clarifiers;

H. Constructing two new 75-foot diameter secondary clarifiers;

I. Installing a new UV disinfection unit containing two channels that will have a peak design capacity of approximately 8.7 MGD;

J. Installing a new plant water pumping and distribution system with two pumps rated at 150 gpm each and motors with variable frequency drives;

K. Constructing a new cascade aeration structure with six steps to Cline Ditch;

L. Constructing a new RAS pumping station with three pumps capable of delivering up to 1,200 gpm each;

M. Converting the aeration tanks to RAS conditioning tanks with a volume of 351,600 gallons;

N. Converting the anaerobic digesters to interchange reactors for the biosolids destruction process and adding a solids separation module with a fine mesh screen;

O. Eliminating two of the sludge drying beds and keeping the remaining four in service;

P. Making improvements to the existing Control Building that also contains a lab and office space;

Q. Installing an emergency generator to back up the entire facility or provide enough standby power for the influent pump station, headworks and disinfection system; and

R. Installing approximately 20 feet of a new 30-inch diameter outfall pipe.

The new average design capacity for the WWTP will be 2.6 MGD with a peak design capacity of 8.7 MGD. The new design loadings for each of the following pollutants are: 4,157 pounds/day (lbs/day) 5-day carbonaceous biochemical oxygen demand ($CBOD_5$); 6,364 lbs/day total suspended solids (TSS); and 537 lbs/day ammonia-nitrogen ($NH_3$-N). The WWTP will be designed to treat the following flow components:

**Projected Wastewater Design Flows**

| Source | Million Gallons per Day |
|---|---|
| Domestic | 1.03 |
| Commercial & Industrial | 1.07 |
| Residual Infiltration | 0.50 |
| **Average Design Flow** | **2.60** |
| **Peak Hourly Design Flow** | **8.70** |

The WWTP effluent will discharge to Cline Ditch next to the WWTP.

The Indiana Department of Environmental Management has proposed the following effluent limitations for Peru-Grissom's WWTP, based on a Wasteload Allocation dated November 21, 2007:

| | Summer | | Winter | |
|---|---|---|---|---|
| | Monthly Average mg/l | Weekly Average mg/l | Monthly Average mg/l | Weekly Average mg/l |
| $CBOD_5$ | 10 | 15 | 10 | 15 |
| TSS | 10 | 15 | 10 | 15 |
| $NH_3$-N | 1.5 | 2.3 | 3.0 | 4.5 |

| | Daily Minimum | Daily Maximum | Monthly Average |
|---|---|---|---|
| pH (standard units) | 6.0 | 9.0 | |
| Dissolved Oxygen | 6.0 | --- | |
| *E. coli* | ----- | 235 | 125 count/100 mls |

## V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Estimated Cost Summary

**Construction and Equipment Costs**

| | |
|---|---|
| Influent Diversion Structure | $ 12,283 |
| Bar Screen | 371,730 |
| Grit Chamber | 407,736 |
| Influent Pump Station | 235,055 |
| Vertical Loop Reactor | 1,850,920 |
| Secondary Diversion Structure | 146,244 |
| Secondary Clarifiers | 766,122 |
| RAS Pump Station | 347,651 |
| Biosolids Destruction Process | 1,259,388 |
| Disinfection | 349,692 |
| Outfall Structure | 10,000 |
| Control/Lab/Office Building | 187,500 |
| Plant Water System | 58,750 |
| Emergency Generator | 100,000 |
| Drying Beds | 40,000 |
| Sitework | 91,824 |
| Electrical | 748,190 |
| Site Piping | 623,490 |
| Equipment Installation | 498,790 |
| Mobilization/Demobilization | 88,250 |
| Bonds and Insurance | 176,510 |
| **Construction and Equipment Subtotal** | **$ 8,370,125** |
| Contingencies | 749,130 |
| **Total Estimated Construction Cost** | **$ 9,119,255** |
| | |
| **Non-Construction Costs** | |
| Engineering | 471,000 |
| Geotechnical Engineering | 20,000 |
| **Non-Construction Subtotal** | **$ 491,000** |
| | |
| **Total Estimated Project Cost (rounded)** | **$ 9,610,000** |

B. The city will borrow approximately $9,610,000 through a 20-year State Revolving Fund Loan Program (SRF) loan at an interest rate to be determined at loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

## VI. DESCRIPTION OF EVALUATED ALTERNATIVES

A. "No Action"

This alternative was rejected, since the plant would continue to periodically violate its NPDES permit limitations. The WWTP would continue to be a labor and energy intensive facility and become more difficult to operate as the existing process equipment ages beyond its useful service life.

B. Sequencing Batch Reactor Alternative

This alternative evaluated (1) the expansion of the SBRs and (2) the construction of new SBRs in the area of the existing sludge drying beds. The expansion of the SBRs alternative was eliminated due to following: the three SBRs plus a fourth SBR would not provide enough hydraulic or organic capacity for the proposed design; operational issues and problems inherent to the design of the SBRs would require the replacement of nearly all of the equipment, piping and controls; and the intermittent nature of the discharge could impact the operation and performance of downstream processes, which would require an effluent flow equalization basin. Construction of new SBRs was also dismissed, since they would require a significant amount of new tank construction, making them cost-prohibitive.

C. Membrane Bioreactor (MBR) Alternative

This alternative relies upon membranes to perform a solid/liquid separation function that would ordinarily be accomplished by clarifiers. MBRs are well suited for nitrification and biological nutrient removal and require significantly less volume than a conventional activated sludge process. However, this alternative was rejected due to high capital cost, the requirement of more space for flow equalization facilities to handle peak flows, and extensive cleaning and maintenance.

D. Vertical Loop Reactor Alternative

This alternative is well suited for simultaneous nitrification/denitrification as well as preventing upsets from high flows. The VLR process also has the ability to handle large peak flows for extended periods of time by switching into a "storm mode." This process would modify the existing three SBR tanks, as described in IV.E above. Based on the VLR process having the lowest capital cost, lowest life cycle cost, lower operation and maintenance costs, and less dependence on automation, this is the selected alternative.

## VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

### A. Direct Impacts of Construction and Operation

Disturbed and Undisturbed Areas: The proposed project will take place on land that has been previously disturbed by other facilities constructed on the existing plant site. The plant site is adjacent to a closed landfill owned by the Air Force.

Structural Resources and Historic Sites (Figures 4A and 4B): The project should not affect historic structures. The SRF's finding, pursuant to the Section 106 of the National Historic Preservation Act, is: "no historic properties affected."

Plants and Animals: The proposed project will not impact state or federal-listed endangered species or their habitat. One tree growing on the side of Cline Ditch may have to be removed for the installation of the proposed outfall pipe and concrete headwall. The city will install rip-rap to protect the slope against erosion.

Prime Farmland: The proposed project will not cause a conversion of prime farmland.

Wetlands and 100-Year Floodplain (Figure 5): The proposed project will not impact wetlands or the 100-year floodplain.

Surface Waters: The proposed project will not adversely affect waters of high quality listed in 327 IAC 2-1-2(3), exceptional use streams listed in 327 IAC 2-1-11(b), or Natural, Scenic and Recreational Rivers and Streams listed in 312 IAC 7-(2).

Groundwater: Dewatering during construction will temporarily affect the groundwater level. No permanent impacts will be made to the groundwater.

Air Quality: Construction activities will produce noise and dust. None of the construction activities are expected to generate enough dust to create a nuisance.

Open Space and Recreational Opportunities: The proposed project will neither create nor destroy open space and recreational opportunities. The proposed project will not affect the golf course adjacent to the WWTP site.

The proposed project will not affect the Lake Michigan Coastal Zone or National Natural Landmarks.

## B. Indirect Impacts

The city's PER states: *Peru Utilities, through the authority of its council, planning commission or other means, will ensure that future development, as well as future collection system or treatment works projects connecting to SRF-funded facilities will not adversely impact archaeological/historical/structural resources, wetlands, wooded area, or other sensitive environmental resources. Peru will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities.*

## C. Comments from Environmental Review Authorities

This document serves as the first notice to the State Historic Preservation Officer, the Indiana Department of Natural Resources Environmental Unit and the U. S. Fish and Wildlife Service.

In correspondence dated January 24, 2008, the Natural Resources Conservation Service stated: *The project to make improvements at the Grissom wastewater treatment plant in Miami County, Indiana, as stated in your letter dated January 17, 2008, will not cause a conversion of prime farmland.*

## VIII. MITIGATION MEASURES

The city's PER lists the following mitigation measures:

A. *The proposed facility will include the use of rip-rap to avoid long term erosion in Cline Ditch.*

B. *The temporary air quality impacts during construction will be lessened by watering the site with plant water during dry weather periods.*

C. *To help mitigate* ( noise and dust) *construction will occur during the daytime hours as to avoid construction-related noise at night.*

D. *Mitigation measures cited in comment letters from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.*

## IX. PUBLIC PARTICIPATION

A stakeholder meeting was held at the Miami County Economic Development Building on December 13, 2007 at 1:30 p.m. Representatives from the Grissom Air Reserve Base, Grissom Aeroplex, Miami Correctional Facility, and from the Miami County Economic Development Authority attended. The Eagle's Pointe community and the staff at the retirement home adjacent to the Grissom WWTP were informed of this meeting and encouraged to attend.

A properly noticed public hearing was held on February 4, 2008 at 5:15 p.m. in the Peru City Hall. One of the residents raised the following comments: concerned about wet weather flows getting into the system and the utility not discussing what they would do to reduce this clear water; the cost of the new plant as well as the additional cost for more labor and maintenance to operate the upgraded plant; what the utility had done with the money that the residents have been paying over the years toward the upkeep of the wastewater treatment system, adding that some of the money being paid by the users could have been set aside in a bank and made available for this project.

The city prepared the following responses:

1. Peru Utilities has taken several measures to eliminate wet weather flows from the treatment plant:

   - A comprehensive smoke testing program was conducted in 2004. Property owners were notified of problems so they could fix them. Most problems were very simple fixes like replacing the cleanout caps, which would allow extraneous water into the sewer system.

   - Installation of infiltration disks in 2004 - More than 400 disks were purchased and installed in manholes to prevent infiltration through the holes in the manholes during rain events.

- Manhole lining – 35 structures were lined in 2007 and 35 in 2008. This project will continue each year until Peru Utilities is satisfied that the majority of infiltration in the manholes has been eliminated. This project started in Eagle's Pointe, which was identified as the area having the greatest need.

- Storm line cleaning has been conducted in major areas of Eagle's Pointe.

- A storm modeling plan was conducted in 2005 and 2006.

- Storm planning – included grate cleaning and coordination with the Air Force on when to open and close the sluice gate that drains the storm water into the Government Ditch, which ultimately discharges to Pipe Creek.

More projects are planned and will be focused in the Eagle's Pointe area due to the possibility of flooding during heavy rain events.

2. The labor costs for the new facility will be no higher than what currently exists. Peru Utilities experience has shown that the facility upgrade can be managed by the same staff as previously employed.

3. The fees collected for the Grissom operation have been used in several ways. They were used to pay back money subsidized from the Peru Utilities operations in the first year of operating the Grissom facility. They were also used to pay off a loan for $250,400 over a five year term, which was acquired due to immediate needs at the plant when Peru Utilities took possession of the facility. The greatest expenses were the installation of Auger Monsters® (a combination of grinder, fine screen and compactor) to replace the filter screen at the headworks and installation of new pumps for the primaries.

   Monies were spent on other projects besides those mentioned in the wet weather flow reduction described above. Some of those major projects are as follows: upgrades to the piping at lift stations 210 and 227; replacement of positive displacement blowers for the SBRs and aeration tanks; new piping for the sludge drying beds; new alarm system for all lift stations; replacement of chlorine and sulfur dioxide feed equipment; new safety shut off valves for chemical cylinders; new geotextile bags for the sludge dying beds; replacement of lift station pumps; replacement of electrical panels at the lift stations; new roofs installed at the control building and the return sludge withdrawal building; new perimeter fencing; new sampling equipment; new effluent flow metering; new chart recorders; and new laboratory equipment. New vehicles were purchased for maintenance, as well as tools and equipment for performing maintenance tasks.

Another resident asked if the proposed project will just be confined to the WWTP site, since the utility received 1.7 acres more that what the original plans showed. The city replied that the project will be confined to the existing WWTP site, since the city did not want to get into the landfill area located to the west.

An additional informational meeting was held on February 26, 2008 in the Apollo Room at the Grissom Aeroplex at 7:00 p.m. to inform those residents who were unable to attend the public hearing. The following questions were raised: Q: Is SRF taking in to account the income of the prisoners in regards to the median household income? A: The Utility is trying to work with SRF to possibly send out a survey to use a more accurate representation of the income for this area. *NOTE: SRF cannot accept income surveys. The MHI must be based on the latest census data for Pipe Creek Township, which encompasses the Grissom service area.* Q: How do the rates shown compare to the

rates the prison would be charged and everyone else? A: The rates are based on usage, not on class. Most of the residential users will fall under the 10,000 gallon or less usage class, where the rate will increase from $4.42 to $9.49; the prison will probably fall in the over 30,000 gallon usage class, and that rate will increase from $3.96 to $8.96. Each would see a $5 increase, in the worst case. Q: What happens when you see a decline in population because of a rate increase? A: Typically people cut back on their usage for a while and then slowly come back to their normal usage patterns. When will the new rate go into affect? The final wastewater rates will be based on actual construction bidding cost. An outside accounting firm will calculate the new rates using a cost-of-service study to allocate the classes and make sure everyone is paying their fair share. Peru will try to phase the rates in over a two to three year period. Construction should begin around September of this year and be completed in the spring of 2010.

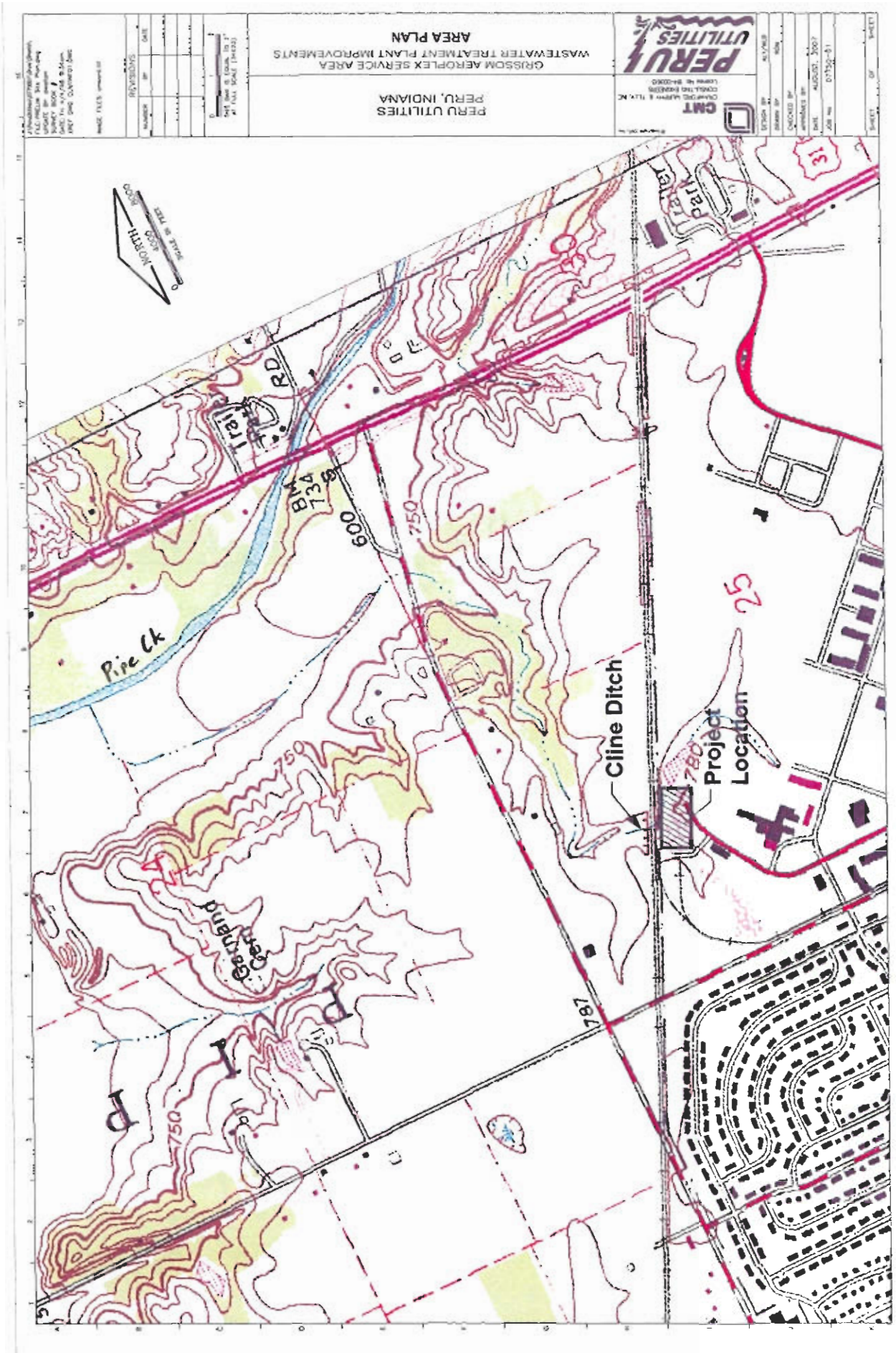


FIGURE 1: Project Location, Cline Ditch & Pipe Creek

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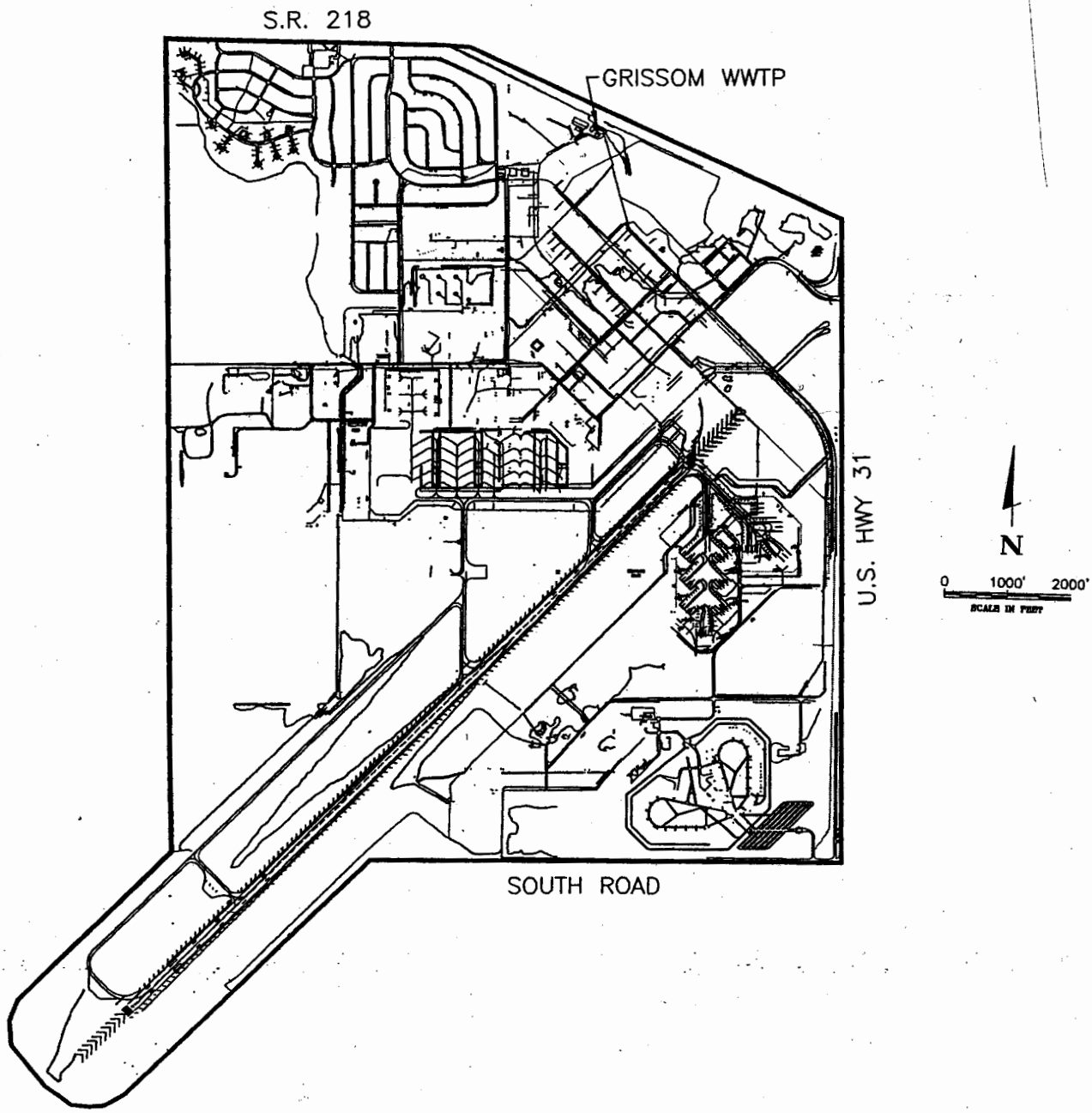


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PERU UTILITIES
PERU, INDIANA

GRISSOM AEROPLEX SERVICE AREA
WASTEWATER TREATMENT PLANT IMPROVEMENTS

PERU UTILITIES

| | |
|---|---|
| DESIGN BY: | AJV |
| DRAWN BY: | RSM |
| CHECKED BY: | |
| APPROVED BY: | |
| DATE: | AUGUST, 2007 |
| JOB No: | 07750-01 |
| SHEET | C-X |
| OF | |
| SHEET | |

REVISIONS
NUMBER | BY | DATE

MADE FILES:

**FIGURE 2: Service Area Boundary Map**

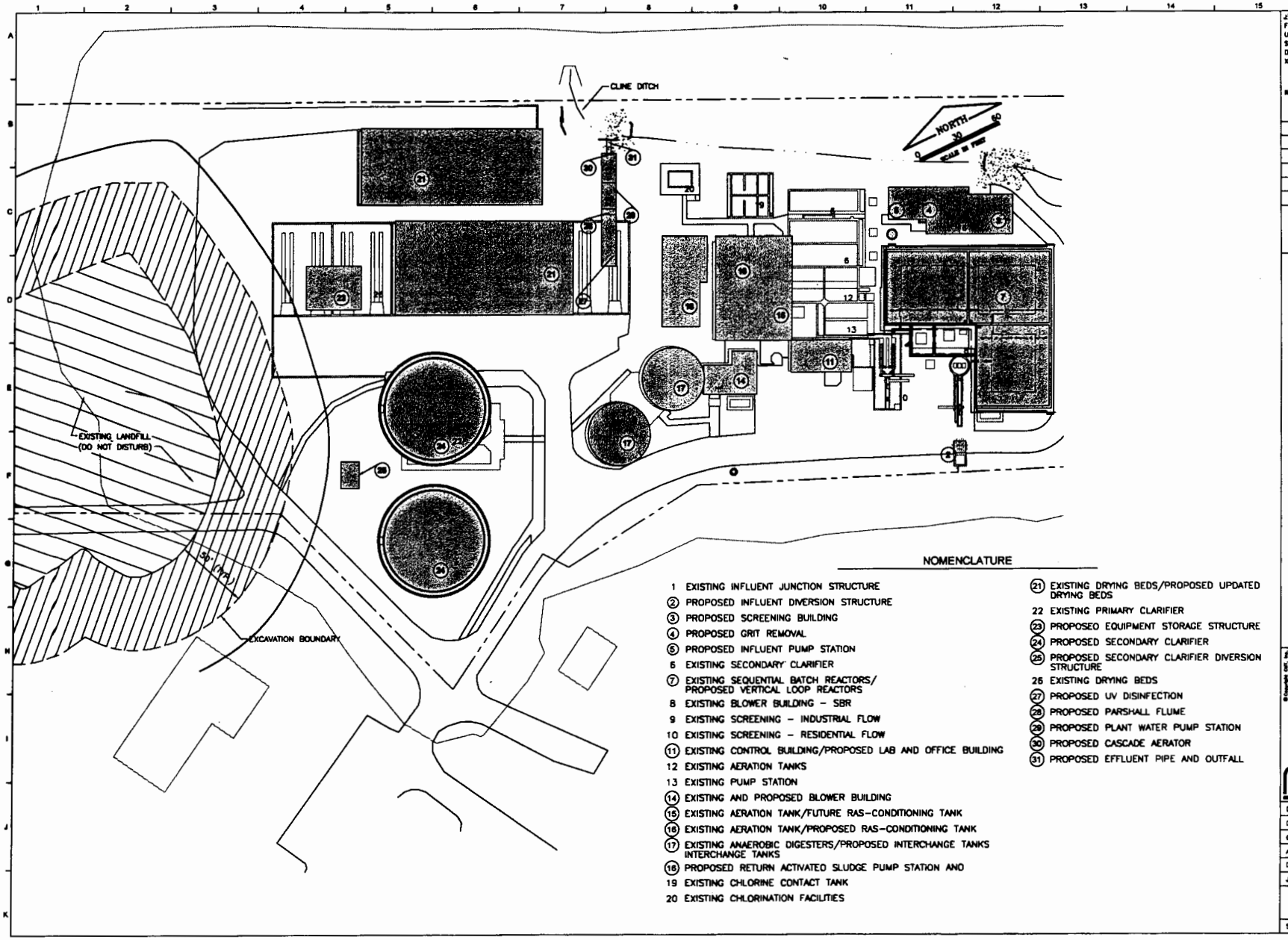


FIGURE 3: Proposed Site Layout

Received 6/24/08

FIGURE 3: Proposed Site Layout

# Pipe Creek Township (35001-047)

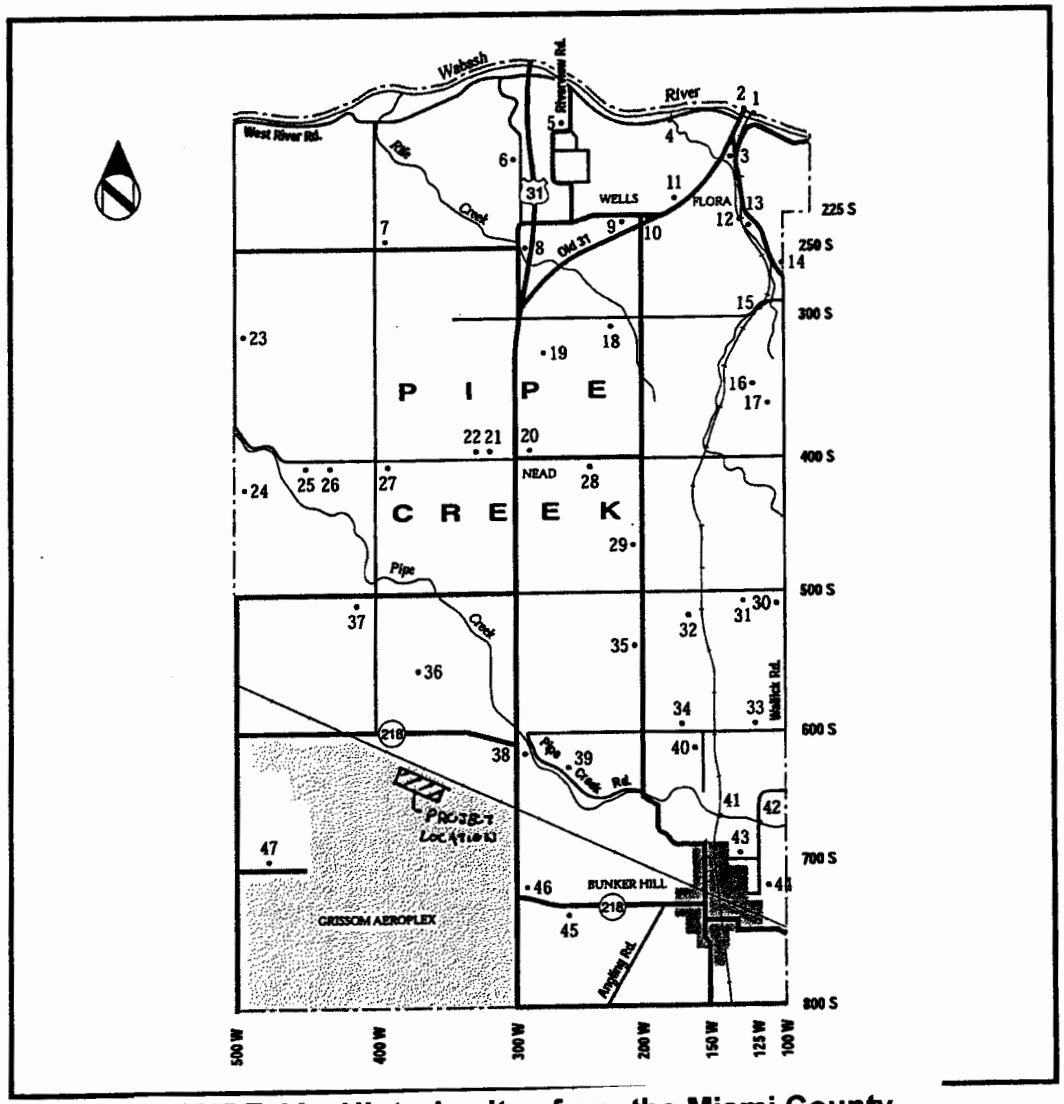


**FIGURE 4A: Historic sites from the Miami County Interim Report, Indiana Historic Sites and Structures Inventory**

**FIGURE 4A: Historic sites from the Miami County Interim Report, Indiana Historic Sites and Structures Inventory**

Pipe Creek Township lies just south of the Wabash River. The first permanent settlers in 1838 found the area to be gently rolling for the most part, dropping off at the northern end, towards the river. Pipe Creek, from which the township derives its name, flows from the southeast across the middle of the township into Cass County. Under the stands of hardwood trees, settlers found the soil to be well drained and fertile. And, on the banks of Pipe Creek, they found an Indian village called Squirrel Village near present-day Bunker Hill. This later became the site of the first successful mill complex.

Enough persons settled in the area by 1843 to warrant the creation of a new township. Eight years later, near the southern border of the township and on each side of Pipe Creek, two towns were laid out. Leonda straddled the new Indianapolis & Peru Railroad on the north side of Pipe Creek, the plat being recorded by Harvey Hoover and Jacob Pottarff. South of the creek, A. Galbraith, J. Myers, and J. Duckwall submitted a plat for a town named Bunker Hill, also on the rail line. The two towns were rivals; Leonda had the post office until it was literally stolen by Bunker Hill. Neither town flourished until news that the Pan Handle Railroad was to pass through the area. As fate would have it, in 1868 the rail lines passed across the southern edge of Bunker Hill, guaranteeing its future and condemning Leonda to obscurity. Today, the former site of Leonda is a trailer court while a small cemetery on 160 West is all that carries the name (35040). Another crossroads hamlet was Nead. Boasting a school and a cluster of houses, Nead straddled U.S. 31 near the center of the township.

One later addition to the character of Pipe Creek Township happened in 1942. With the entry of the United States into World War II, facilities

# Bunker Hill Naval Air Station (37001-010)

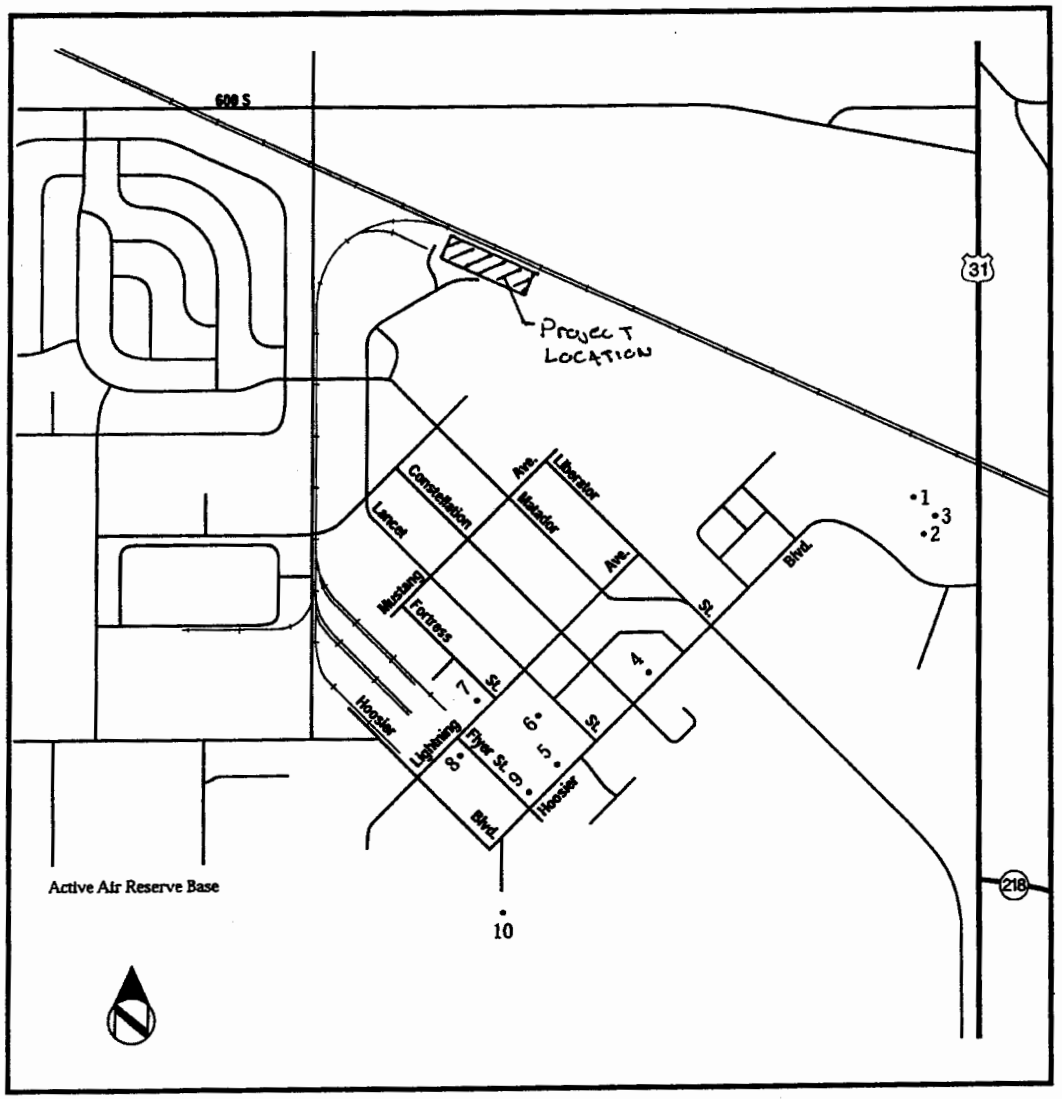


**Figure 4B: Historic sites from the Miami County Interim Report, Indiana Historic Sites and Structures Inventory**

In 1942, the United States was facing enemies on two fronts. Nazi Germany had overrun Europe and was at the gates of Moscow. In the Pacific, Japan had crippled the U.S. Fleet at Pearl Harbor, humiliated the British at Singapore, and were threatening Australia. It was obvious that the war would depend heavily on naval power and, as the Japanese had so boldly demonstrated on the U.S.S. Arizona and her sister ships, naval aviation would carry the major responsibilites.

Millions of men joined or were called up into the service of their country. A select few would be chosen to become naval aviators. The United States Navy trained their pilots at Pensacola, Florida, but it was soon obvious that this facility was inadequate to train the numbers of men required. Locations for other facilities were scouted. A flat plain of farmland south of Peru, Indiana was chosen for one of these training centers. Centrally located between Chicago and Indianapolis with access to a large rail network, the southwestern corner of Pipe Creek Township, Miami County, was to be converted from peaceful farmland to the "U.S.S. Cornfield," the Naval Air Station at Bunker Hill.

Land was purchased, farm houses and outbuildings leveled, fences pulled up, and construction equipment shipped in. As the concrete runway was being graded and poured, teams of men were busy building the facilities necessary for the Station's mission. While administrators worked out of old farm houses and men slept in tents, a large administration building was being constructed (37004). The architectural style chosen was a restrained Colonial Revival style, while the barracks nearby were more functional in appearance. By the end of the war, over 100 buildings and structures covered the base.

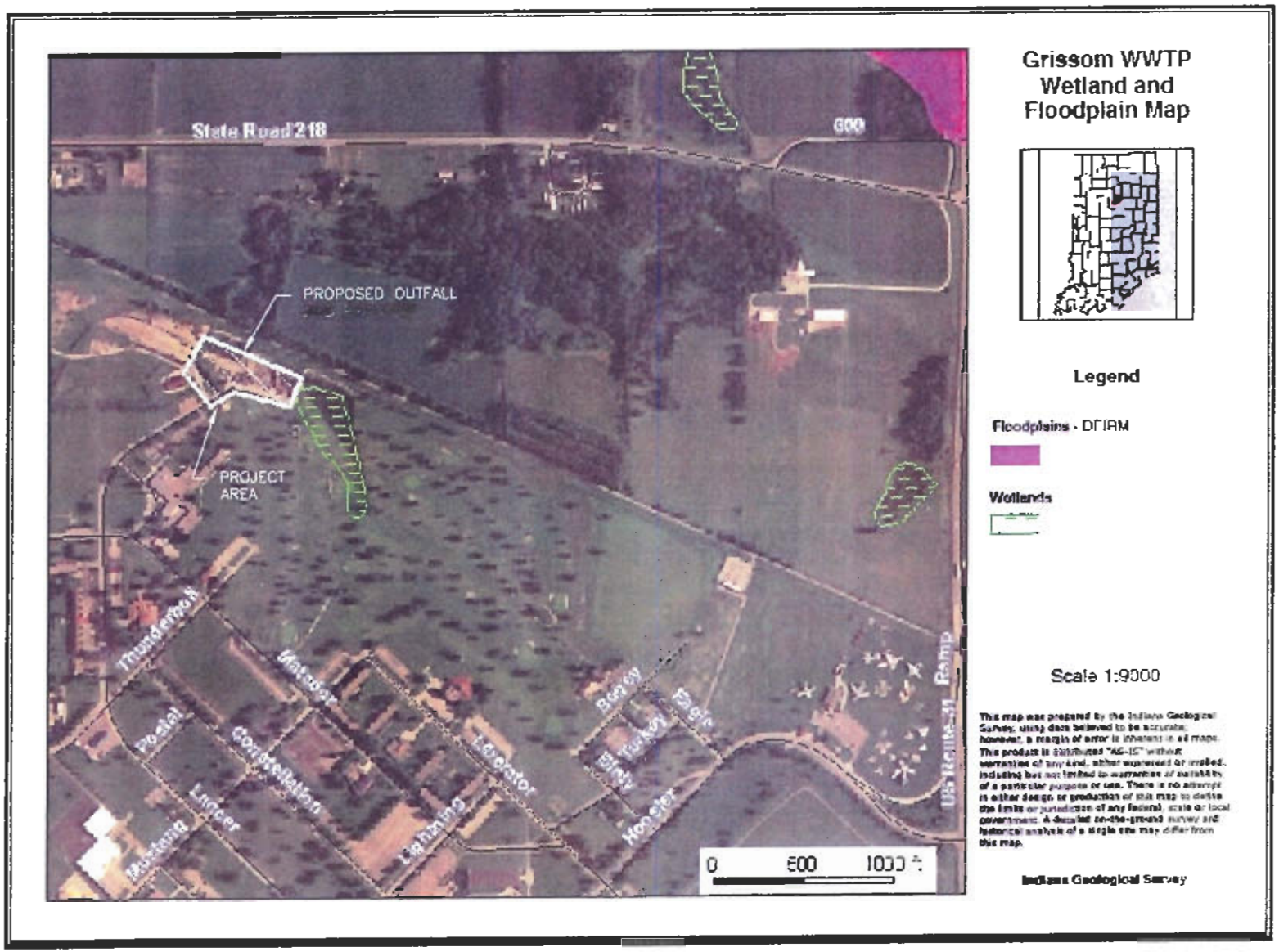


Figure 5: Wetland and 100-year Floodplain Map

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